

CLAIMS LISTING

- 1.(original) A stimulable phosphor screen or panel comprising a phosphor layer and a support characterized in that an intermediate layer arrangement of an X-ray absorbing foil or layer and, farther from the support, a stimulated light reflecting foil is present between said support and said phosphor layer.
- 2.(original) A stimulable phosphor screen or panel according to claim 1, wherein said intermediate layer arrangement comprises an X-ray absorbing layer, wherein as a lead compound an oxide or a hydroxide of lead metal is dispersed in a binder and wherein said binder containing the lead compound is a matrix of a polycondensation product of a metal alkoxide species.
- 3.(original) A stimulable phosphor screen or panel according to claim 2, wherein said binder containing the lead compound is a matrix of an inorganic network of alkoxymetal substituted organic polymers or copolymers matrix.
- 4.(original) A stimulable phosphor screen or panel according to claim 3, wherein said matrix is derived from a cross-linking agent selected from the group consisting of dialkoxysilanes, trialkoxysilanes, tetraalkoxysilanes, titanates, zirconates and aluminates; and a colloid of

silica, and wherein said matrix comprises a colloid of an oxide or a hydroxide of lead metal.

5.(original) A stimuable phosphor screen or panel according to claim 1, wherein said intermediate layer arrangement comprises, as an X-ray absorbing layer a layer of lead.

6.(original) A stimuable phosphor screen or panel according to claim 1, wherein as a stimulated light reflecting foil an aluminum layer is present.

7.(original) A stimuable phosphor screen or panel according to claim 2, wherein as a stimulated light reflecting foil an aluminum layer is present.

8.(original) A stimuable phosphor screen or panel according to claim 3, wherein as a stimulated light reflecting foil an aluminum layer is present.

9.(original) A stimuable phosphor screen or panel according to claim 4, wherein as a stimulated light reflecting foil an aluminum layer is present.

10.(original) A stimuable phosphor screen or panel according to claim 5, wherein as a stimulated light reflecting foil an aluminum layer is present.

11.(original) A phosphor screen or panel according to claim 1, wherein said support is selected from the group consisting

of ceramics, glass, amorphous carbon, aluminum and polymeric films.

12.(original) A phosphor screen or panel according to claim 6, wherein said support is selected from the group consisting of ceramics, glass, amorphous carbon, aluminum and polymeric films.

13.(original) A phosphor screen or panel according to claim 1, wherein said intermediate layer arrangement has a surface that has been subjected to embossing for forming a fine concavo-convex pattern.

14.(original) A phosphor screen or panel according to claim 6, wherein said intermediate layer arrangement has a surface that has been subjected to embossing for forming a fine concavo-convex pattern.

15.(original) A phosphor screen or panel according to claim 11, wherein said intermediate layer arrangement has a surface that has been subjected to embossing for forming a fine concavo-convex pattern.

16.(original) A phosphor screen or panel according to claim 12, wherein said intermediate layer arrangement has a surface that has been subjected to embossing for forming a fine concavo-convex pattern.

- 17.(original) A phosphor screen or panel according to claim 1,
having between said intermediate layer arrangement and the
support a moisture-repellent parylene layer.
- 18.(original) A phosphor screen or panel according to claim 6,
having between said intermediate layer arrangement and the
support a moisture-repellent parylene layer.
- 19.(original) A phosphor screen or panel according to claim 11,
having between said intermediate layer arrangement and the
support a moisture-repellent parylene layer.
- 20.(original) A phosphor screen or panel according to claim 12,
having between said intermediate layer arrangement and the
support a moisture-repellent parylene layer.
- 21.(original) A phosphor screen or panel according to claim 1,
having between said intermediate layer arrangement and the
phosphor layer a moisture-repellent parylene layer.
- 22.(original) A phosphor screen or panel according to claim 6,
having between said intermediate layer arrangement and the
phosphor layer a moisture-repellent parylene layer.
- 23.(original) A phosphor screen or panel according to claim 11,
having between said intermediate layer arrangement and the
phosphor layer a moisture-repellent parylene layer.

- 24.(original) A phosphor screen or panel according to claim 12,
having between said intermediate layer arrangement and the
phosphor layer a moisture-repellent parylene layer.
- 25.(original) A phosphor screen or panel according to claim 1,
having between said intermediate layer arrangement and the
phosphor layer and between said intermediate layer
arrangement and the support a moisture-repellent parylene
layer.
- 26.(original) A phosphor screen or panel according to claim 6,
having between said intermediate layer arrangement and the
phosphor layer and between said intermediate layer
arrangement and the support a moisture-repellent parylene
layer.
- 27.(original) A phosphor screen or panel according to claim 11,
having between said intermediate layer arrangement and the
phosphor layer and between said intermediate layer
arrangement and the support a moisture-repellent parylene
layer.
- 28.(original) A phosphor screen or panel according to claim 12,
having between said intermediate layer arrangement and the
phosphor layer and between said intermediate layer
arrangement and the support a moisture-repellent parylene
layer.

- 29.(original) A phosphor screen or panel according to claim 1, wherein said phosphor is a binderless phosphor, having needle-shaped crystals.
- 30.(original) A phosphor screen or panel according to claim 6, wherein said phosphor is a binderless phosphor, having needle-shaped crystals.
- 31.(original) A phosphor screen or panel according to claim 11, wherein said phosphor is a binderless phosphor, having needle-shaped crystals.
- 32.(original) A phosphor screen or panel according to claim 12, wherein said phosphor is a binderless phosphor, having needle-shaped crystals.
- 33.(original) A binderless stimuable phosphor screen or panel according to claim 29, wherein said needle-shaped phosphor crystals are crystals of an alkali metal phosphor.
- 34.(original) A binderless stimuable phosphor screen or panel according to claim 30, wherein said needle-shaped phosphor crystals are crystals of an alkali metal phosphor.
- 35.(original) A binderless stimuable phosphor screen or panel according to claim 31, wherein said needle-shaped phosphor crystals are crystals of an alkali metal phosphor.

- 36.(original) A binderless stimuable phosphor screen or panel according to claim 32, wherein said needle-shaped phosphor crystals are crystals of an alkali metal phosphor.
- 37.(original) A binderless stimuable phosphor screen according to claim 29, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.
- 38.(original) A binderless stimuable phosphor screen according to claim 30, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.
- 39.(original) A binderless stimuable phosphor screen according to claim 31, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.
- 40.(original) A binderless stimuable phosphor screen according to claim 32, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.
- 41.(original) A binderless stimuable phosphor screen according to claim 33, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.

- 42.(original) A binderless stimuable phosphor screen according to claim 34, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.
- 43.(original) A binderless stimuable phosphor screen according to claim 35, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.
- 44.(original) A binderless stimuable phosphor screen according to claim 36, wherein said alkali metal phosphor is a CsX:Eu stimuable phosphor, wherein X represents a halide selected from the group consisting of Br, Cl and I.